

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An on water data logger which includes:

a) a movement sensor to sense movement

b) at least one physiological sensor attachable to a human body

c) a control unit to receive the data from the movement sensor and the physiological sensor

d) said control unit being programmed to manipulate the received data and transform it into useful parameters for assessing performance

e) display means for displaying the said parameters

f) storage means for storing the parameters and/or

g) telemetry means for transmitting the parameters to a remote control point.

2. (Original) An on water data logger as claimed in claim 1 which the data logger is fitted to a rowing craft and physiological sensors are fitted to each crew member and arranged to communicate with said data logger.

3. (Currently Amended) An on water data logger as claimed in claim 1 or 2 in which the movement sensor is an accelerometer that is used to derive stroke rate for a rowing craft.

4. (Currently Amended) An on water data logger as claimed in claim 1 ~~any preceding claim~~ that also includes a boat speed sensor.

5. (Currently Amended) An on water data logger as claimed in claim 1 ~~any preceding claim~~ which includes a GPS unit used to derive velocity and stroke rate.

6. (Currently Amended) An on water data logger as claimed in claim 1-any preceding claim in which the physiological sensor is a heart rate monitor.

7. (Currently Amended) A data acquisition system for use in sporting events which incorporates:

- a) a global position sensor to derive three dimensional positioning data relative to time elapse
- b) at least one accelerometer to derive acceleration and velocity data in three dimensions
- c) a microcontroller with a clock to interrogate the global position sensor at a frequency of at least 1Hz and to measure the accelerometer data
- d) a power supply
- e) communication means for wireless transmission of global position and accelerometer data from the microcontroller to a remote computer device
- f) the remote computer device being programmed to use the global position and accelerometer data to provide accurate and continuous output of parameters such as velocity acceleration and distance traveled.

8. (Original) A data acquisition system as claimed in claim 7 in which velocity is derived from the global position sensor and the accelerometer data is sampled to obtain movement characteristics of the sport being monitored.

9. (Original) A data acquisition system as claimed in claim 7 wherein the accelerometer data is integrated to derive velocity related movement characteristics and drift is be checked every second using the output from the global position sensor.

10. (Original) A data acquisition system as claimed in claim 7 wherein an inertial navigation system based on the accelerometer data is used to determine position when the GPS system is unable to receive it data.